Farm business real estate debt increased 4.5 percent in 1997, standing at $85.4 billion at the end of the year. Non-real-estate debt rose 7.6 percent to $80.0 billion. On December 31, 1997, commercial banks held 40 percent of farm business debt, and the Farm Credit System held 26 percent.

Table 3-2.

Farm business assets, debt, and equity[1]

Item	*1960*	*1970*	*1980*	*1990*	*1997*
			Billion dollars		
Assets	171.0	273.0	965.9	841.5	1,088.8
Real estate	123.3	202.4	782.8	620.0	849.2
Non-real-estate 2/	47.7	70.6	183.0	221.5	239.6
Debt	22.4	48.8	166.8	138.0	165.4
Real estate 3/	11.3	27.5	89.7	74.7	85.4
Non-real-estate 4/	11.1	21.2	77.1	63.2	80.1
Equity (assets minus debt)	148.6	224.3	799.0	703.5	923.4

[1] As of December 31. 2/ Crop inventory value is value of non-Commodity Credit Corportation (CCC) crops held on farms plus value above loan rate for crops held under CCC. 3/ Includes CCC storage and drying facilities loans. 4/ Excludes value of CCC crop loans.
Source: USDA, Economic Research Service, Resource Economics Division.

Net Value-Added, Net Farm Income, and Net Cash Income

Net value-added and net farm income both declined by $3.5 billion in 1997, but each measure remained at a level surpassed only by the record values attained in 1996. Both these measures of farm income had risen substantially from 1995 to 1996. As a consequence, even though net value-added fell 3.7 percent in 1997, it was still $17.9 billion greater than for 1995. **Net value-added** represents the total value of the farm sector's output of goods and services, less payments to other (non-farm) sectors of the economy, and is production agriculture's addition to national output.

The value of the sector's production (final output) increased by $2.3 billion in 1997. This increase, however, was exceeded by the $5.7 billion expansion in out-of-pocket costs (intermediate consumption outlays). The result was $3.5 billion less in net value-added to be distributed among the providers of resources to the farm sector in 1997. Hired workers and lenders received 3.9 percent and 3.5 percent more for their contributions to 1997 farm production than in 1996. By contrast, the earnings of non-operator landlords were down 7.4 percent. The decline in earnings to landlords reflected lower returns to holders of share-rent contracts, which, in turn, can be traced directly to the $3.1 billion decline in the value of crop production. Most share-rent arrangements involve crops, and while the harvest for many major crops remained near or even exceeded the record levels of 1996, prices received in selling commodities were significantly lower than in 1996.

Net farm income, which fell $3.5 billion from 1996 to 1997, is that portion of net value-added earned by farm operators (defined as those individuals and entities who share in the risks of production). Typically, it is the farm operators who benefit most from the increases and absorb most of the declines arising from short-term, unanticipated weather, and market conditions. In fact, an amount equal to the total 1997 drop in net value-added accrued to farm operators, as the increase in factor payments to hired labor and lenders offset the lower payments to landlords. Declining prices accounted for much of the drop in net value-added in 1997 and is reflected in net farm income.

Net cash income rose by $4.3 billion, a 7.7-percent increase from 1996 to 1997. Cash earnings realized within the year from the sales of production, and the conversion of assets, both inventories (in years in which they are reduced) and capital consumption, into cash are the receipts included in net cash income. Unlike net farm income, net cash income does not include the value of home consumption, changes in inventories, capital replacement, and implicit rent and expenses related to the farm operator's dwelling—none of which reflect cash transactions during the current year.

The value of the agricultural sector production (commodities and services) rose a mere $2 billion from 1996 to 1997, but the level in 1996 had exceeded the previous record (1994) by a whopping $20 billion. Increases of $5 billion in the value of cattle production and $3.6 billion in the value of soybean production more than offset the declines in value of other commodities where lower prices decreased returns. Yet, the higher value of output only partially offset the $5.7 billion increase in intermediate consumption outlays. The outcome was a $3.8 billion fall in net value-added.

The total value of final 1997 crop output was down $3.4 billion, reflecting significant price declines for many major crops. In 1996, crop prices had been high in the first half but began a decline in the second half that continued on through 1997. Soybeans were an exception as prices ascended to an unusually rarified level of $8 per bushel or more in the first half of 1997. Soybean prices began tailing off in the second half, but still finished the year in a range favorable to producers. With large crop harvests in 2 consecutive years, farmers sold during the year approximately what they harvested, incrementing inventories by a modest $323 million. Inclusion of the inventory change enables a full accounting of a current year's production in the tabulation of the calendar year's farm sector output.

The total value of livestock production in 1997 was $4 billion higher than the previous year, the second consecutive year with significant increase. The value of cattle produced jumped $5 billion, and hog producers added another $498 million to the production of meat animals. The value of dairy products declined $1.8 billion. Market prices available to farmers for hogs and broilers declined sharply in the latter half of 1997, beef cattle prices were steady throughout the year after staging a comeback from lows reached in first half of 1996, and dairy prices bottomed out and turned up in the summer of 1997. The $5 billion rise in cattle production resulted from a jump in production in response to the improvement in market prices. Producers reversed the herd liquidation which they had been employing to minimize the consequences of being caught in an ongoing cost-price squeeze without prospects of an immediate turnaround. The rapid structural change occurring in livestock production with regional shifts in production and consolidation into large operations

Table 3-3.

Value added to the U.S. economy by the agricultural sector via the production of goods and services, 1994-97[1]

	1994	1995	1996	1997	Year-to-year change Amount	Percent
	$ Million				$ Million	Percent
Final crop output	100,314	95,805	115,591	112,498	(3,093)	(2.7)
Food grains	9,545	10,417	10,741	10,603	(138)	(1.3)
Feed crops	20,351	24,581	27,265	27,638	374	1.4
Cotton	6,738	6,851	6,983	6,515	(468)	(6.7)
Oil crops	14,657	15,496	16,362	19,911	3,549	21.7
Tobacco	2,656	2,548	2,796	2,886	90	3.2
Fruits and tree nuts	10,335	11,119	11,933	12,790	858	7.2
Vegetables	13,893	14,913	14,561	15,086	525	3.6
All other crops	14,897	15,165	15,935	16,668	732	4.6
Home consumption	72	104	92	78	(13)	(14.7)
Value of inventory adjustment[2]	7,170	(5,390)	8,924	323	na	na
Final animal output	89,691	87,632	92,190	96,200	4,009	4.3
Meat animals	46,785	44,828	44,414	49,925	5,511	12.4
Dairy products	19,935	19,894	22,820	20,989	(1,831)	(8.0)
Poultry and eggs	18,445	19,070	22,345	22,183	(162)	(0.7)
Miscellaneous livestock	3,004	3,227	3,425	3,471	46	1.3
Home consumption	409	365	333	380	47	14.2
Value of inventory adjustment[2]	1,112	248	(1,147)	(749)	na	na
Services and forestry	17,886	19,388	20,671	22,074	1,403	6.8
Machine hire and custom work	2,071	1,928	2,154	2,601	447	20.8
Forest products sold	2,743	2,947	2,824	2,840	16	0.6
Other farm income	4,392	5,213	5,894	6,350	456	7.7
Gross imputed rental value of farm dwellings	8,680	9,300	9,799	10,283	484	4.9
Final agricultural sector output	207,891	202,824	228,452	230,771	2,319	1.0
Less: Intermediate consumption outlays	104,903	109,002	112,852	118,552	5,700	5.1
Farm origin	41,278	41,626	42,675	45,695	3,021	7.1
Feed purchased	22,631	23,829	25,234	25,232	(3)	(0.0)
Livestock and poultry purchased	13,273	12,335	11,229	13,753	2,524	22.5
Seed purchased	5,373	5,462	6,212	6,711	499	8.0
Manufactured inputs	24,398	26,155	28,640	28,964	324	1.1
Fertilizers and lime	9,180	10,033	10,934	10,933	(1)	(0.0)
Pesticides	7,225	7,726	8,526	8,827	301	3.5
Petroleum fuel and oils	5,312	5,427	6,019	6,223	204	3.4
Electricity	2,682	2,968	3,161	2,981	(181)	(5.7)
Other intermediate expenses	39,227	41,220	41,536	43,892	2,356	5.7
Repair and maintenance of capital items	9,083	9,470	10,254	10,394	139	1.4
Machine hire and custom work	4,790	4,792	4,719	4,833	113	2.4
Marketing, storage, transportation expenses	6,821	7,182	6,926	7,106	179	2.6
Contract labor	1,805	1,969	2,129	2,596	467	21.9
Miscellaneous expenses	16,728	17,807	17,508	18,964	1,457	8.3
PLUS: Net Government tranactions	989	106	98	56	(42)	(43.0)
+ Direct Government payments	7,879	7,279	7,340	7,496	156	2.1
- Motor vehicle registration and licensing fees	415	462	423	461	39	9.2
-Property taxes	6,475	6,711	6,819	6,979	160	2.3
Gross value added	103,977	93,929	115,699	112,275	(3,423)	(3.0)
less: Capital consumption	18,695	19,099	19,419	19,520	101	0.5
Net value-added	85,282	74,830	96,280	92,755	(3,524)	(3.7)
LESS: Factor payments	37,015	38,847	42,928	42,931	4	0.0
Employee compensation (total hired labor)	13,506	14,321	15,406	16,011	604	3.9
Net rent received by nonoperator landlords	11,774	11,799	14,301	13,243	(1,057)	(7.4)
Real estate and non-real-estate interest	11,735	12,726	13,221	13,678	457	3.5
Net farm income	48,266	35,984	53,352	49,824	(3,528)	(6.6)

[1]Final sector output is the gross value of the commodities and services produced within a year. Net value-added is the sector's contribution to the national economy and is the sum of the income from production earned by all factors of production. Net farm income is the farm operators' share of income from the sector's production activities. The concept presented is consistent with that employed by the Organization for Economic Cooperation and Development.

[2]A positive value of inventory change represents current-year production not sold by December 1. A negative value is an offset to production from prior years included in current-year sales.

Na = not applicable.

Source: USDA, Economic Research Service, Resource Economics Division

Table 3-4.

Farm income indicators, 1994-97

	1994	1995	1996	1997	Year-to-year change Amount	Year-to-year change Percent
	Million dollars				$ Million	Percent
Gross farm income	215,770	210,104	235,791	238,267	2,476	1.1
Gross cash income	198,326	205,476	217,791	227,952	10,160	4.7
Farm marketings	181,241	188,108	199,580	208,665	9,085	4.6
Crops	93,072	101,090	106,575	112,097	5,522	5.2
Livestock and products	88,169	87,018	93,005	96,568	3,563	3.8
Government payments	7,879	7,279	7,340	7,496	156	2.1
Farm-related income	9,206	10,088	10,872	11,791	919	18.5
Noncash income	9,161	9,770	10,223	10,741	518	5.1
Value of home consumption	481	469	425	458	34	8.0
Rental value of dwellings	8,680	9,300	9,799	10,283	484	4.9
Operator and other dwellings[1]	8,241	8,732	9,167	9,716	549	6.0
Hired laborer dwellings	439	568	631	566	(65)	(10.3)
Value of inventory adjustment	8,283	(5,142)	7,777	(425)	na	na
Total production expenses	167,504	174,120	182,439	188,443	6,004	3.3
Intermediate product	103,513	107,494	111,145	116,417	5,272	4.7
Farm origin	41,278	41,626	42,675	45,695	3,021	7.1
Feed purchased	22,631	23,829	25,234	25,232	(3)	(0.0)
Livestock and poultry purchased	13,273	12,335	11,229	13,753	2,524	22.5
Seed purchased	5,373	5,462	6,212	6,711	499	8.0
Manufactured inputs	24,398	26,155	28,640	28,964	324	1.1
Fertilizer and lime	9,180	10,033	10,934	10,933	(1)	(0.0)
Pesticides	7,225	7,726	8,526	8,827	301	3.5
Fuel and oil	5,312	5,427	6,019	6,223	204	3.4
Electricity	2,682	2,968	3,161	2,981	(181)	(5.7)
Other	37,837	39,713	39,830	41,757	1,927	4.8
Repair and maintenance	9,083	9,470	10,254	10,394	139	1.4
Other miscellaneous	28,754	30,243	29,576	31,364	1,788	6.0
Interest	11,735	12,726	13,221	13,678	457	3.5
Real estate	5,782	6,042	6,359	6,544	185	2.9
Non-real-estate	5,954	6,685	6,862	7,133	272	4.0
Contract and hired labor	15,311	16,290	17,535	18,606	1,071	6.1
Net rent to nonoperator landlords[2]	11,774	11,799	14,301	13,243	(1,057)	(7.4)
Capital consumption	18,695	19,099	19,419	19,520	101	0.5
Property taxes	6,475	6,711	6,819	6,979	160	2.3
NET FARM INCOME[3]	48,266	35,984	53,352	49,824	(3,528)	(6.6)
Gross cash income	198,326	205,476	217,791	227,952	10,160	4.7
Cash expenses	147,648	153,640	161,354	167,168	5,815	3.6
Cash expenses, excluding net rent	134,495	140,433	145,620	152,494	6,874	4.7
Intermediate product	102,566	106,532	109,962	115,142	5,180	4.7
Interest	11,338	12,303	12,785	13,196	411	3.2
Cash labor expenses	14,873	15,722	16,904	18,040	1,136	6.7
Property taxes	5,718	5,876	5,970	6,117	147	2.5
Net rent to nonoperator[4]	13,154	13,206	15,733	14,674	(1,059)	(6.7)
NET CASH INCOME	50,678	51,836	56,438	60,783	4,346	7.7

[1]Value added to gross income. Value added to net farm income equals difference in net farm income and returns to operators.

[2]Includes landlord capital consumption.

[3]Statistics in and above the Net Farm Income line represent the farm sector, defined as including farm operators' dwellings located on farms. Statistics below the Net Farm Income line represent only the farm businesses to the exclusion of the operators' dwellings.

[4]Excludes landlord capital consumption.

Na = not applicable.

Source: USDA, Economic Research Service, Resource Economics Division.

(examples: hogs in North Carolina and dairy in California) has resulted in higher production and lower prices that will persist until higher cost production declines in sufficient quantities to achieve an equilibrium. As an aside, a consequence of this restructuring is that a higher percentage of feed is being purchased as opposed to being grown on the farms producing the livestock.

Farm Household Income

Farm operators have been surveyed by the annual Agricultural Resource Management Study (formerly the Farm Costs and Returns Survey) about the finances and production of their farms since 1985. Beginning in 1988, USDA collected additional information about the operator's household. In 1997, the most recent year for which the survey data are available, about 98 percent of farms were covered in the household definition. Included are those run by individuals, legal partnerships, and family corporations. Nonfamily corporations, cooperatives, and institutional farms are not included in the household definition.

Like many other U.S. households, farm households receive income from a variety of sources, one of which is farming. The 1997 average household income for farm operators households was $52,300, which is on par with the average U.S. household. About 89 percent of the average farm operator's household income came from off-farm sources, and many operators spent most of their work efforts in occupations other than farming. Off-farm income includes earned income such as wages and salaries from an off-farm job and net income from an off-farm business. Off-farm income also includes unearned income, such as interest and dividends, and Social Security.

For the majority of farm operator households, off-farm income is critical. Most U.S. farms are run by households that depend mainly on off-farm income. About 43 percent of operators reported a nonfarm major occupation in 1996, and another 19 percent were retired. Most operators of larger farms reported farming as their major occupation, and their households were more likely to depend on farm income.

Average household income and dependence on off-farm income also varies among types of farm households. For example, 8 percent reported negative household income for 1997. On average, these households lost $47,566 from farming during the year. About 34 percent had household income of $50,000 or over, with farm income averaging $29,025. Among occupational categories, households of operators who reported occupations other than farming or retired had the highest average household income, largely from off-farm sources. Data on operators' age show that households associated with the oldest operators had the lowest average household income. Data on operators' educational level show significant increases in average income with each higher educational level.